

CONCEPT WETLAND

3 sections:

Assume: Pond is 3' deep
300' long, & 50' wide or
45,000 cu ft. Times 1q,728
cu in/cu ft = 77,760,000 cu
in: or 242,243 gallons or 13
day retention time

Assume: no evaporation
Pond 1:1 water to volume
Surface flow is 1:1
Sub surface flow is 40% voids

Pond 40' X 40' X 2' = 3,200 cu ft
or 17,226 gallons or 2 day
retention time for 8,750 gpd

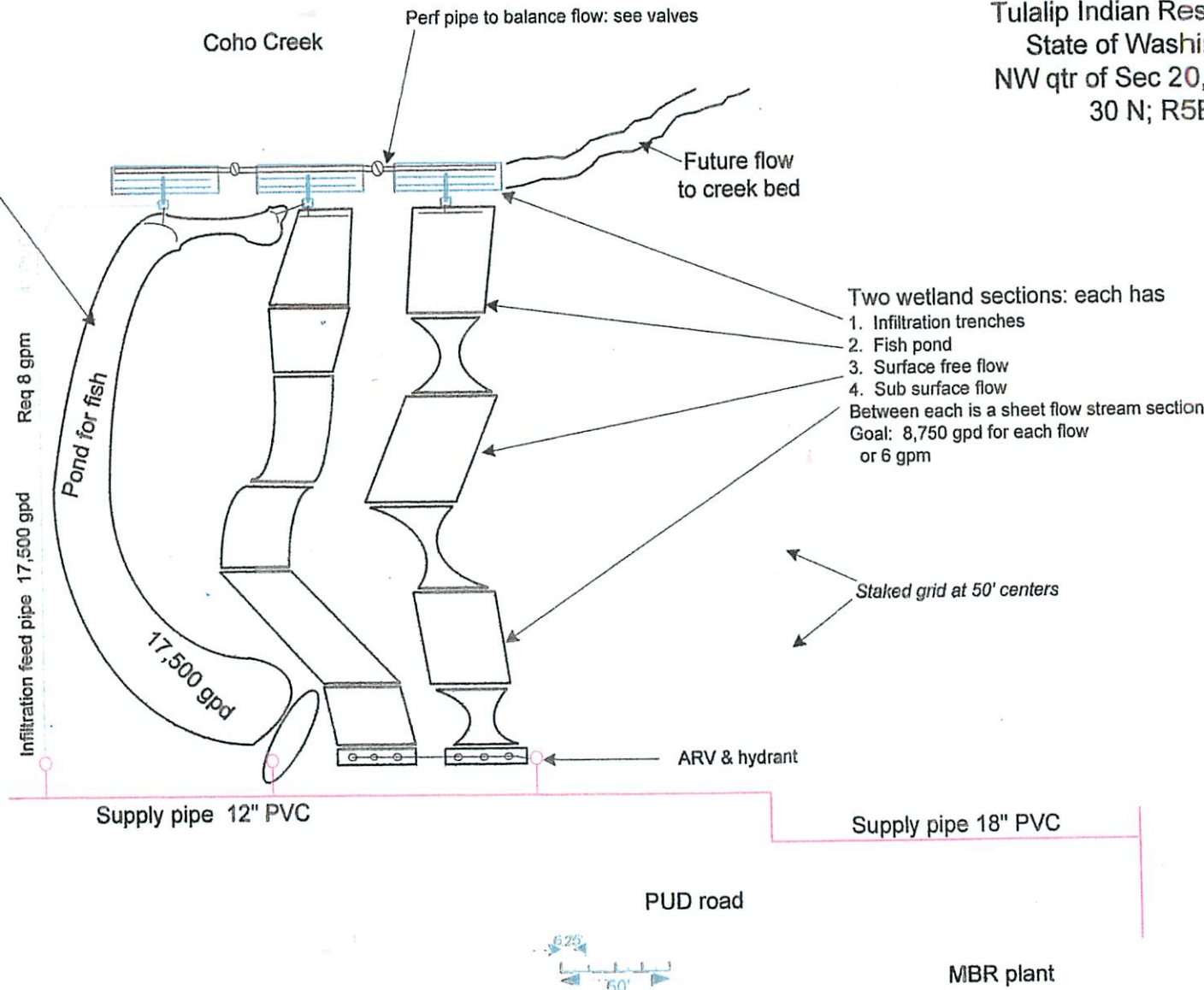
Surface flow: 40' x 40' x 2' or
3,200 cu ft = 17,226 gallons

Sub surface flow: 40' x 40' x 2' =
3,200 cu ft. 40% voids = 6,890
gallons or 9.45 hr retention time

Pond 17,226 gal
Surface 17,226 gal
Sub surf 6,890 gal
Total 41,342 gal or
2.36 days retention time

OPERATIONAL METHOD:

1. Vol of water to wetland takes precedence; adjust vol to maximize goals
2. Fish pond - steady volume to keep ox level and flow; let plants grow by natural selection; ox and flow drive program
3. Use infiltration as overflow and to balance other pond and wetland
4. Adjust retention times as study dictates



Tulalip Indian Reservati
State of Washington
NW qtr of Sec 20, Twn:
30 N; R5E